Orthoimagery

Essential

- Better/higher quality image data
- NAIP Imagery
- LIDAR flown at a high density (4 points per m2) and all returns archived along with their reflectance intensity (to be used for vegetation mapping as well as terrain mapping)
- Digital, natural color, near-vertical and oblique aerial imagery
- 8-day 1-km MODIS satellite fPAR/Leaf Area Index rasters

Important

- Capabilities to map fire locations in near real time, using a combination of GPS / Mid-Infrared imagery from a variety of platforms such as helicopter, aircraft, and satellite
- Scanned historic aerial photos
- High resolution stereo pair orthoimagery
- Annual CIR or other which could help identify vegetation
- Remote sensing data in GIS compliant format: wildfire/hot spot/burned area/smoke plume, lightning strikes, precipitation fields, etc.

Useful

- None

Analysis

- High resolution (sub meter), contemporary (<1 yr) imagery is clearly of great importance to many.
- Demand for other sensors (e.g., LIDAR, CIR) is emerging demonstrating increased sophistication in the application of imagery.
- Collaboration in the procurement and licensing of imagery is seen as important.
- There is a strong desire and expectation that imagery acquired using public funds is put in the public domain.

Elevation

Essential

- High resolution elevation data for flood prone areas
- DEM or surface model merged by county

Important

- Elevation/terrain models including road cuts for highways, roads, development
- Nearshore Bathymetry

- LIDAR & other elevation data

Useful
- None

Analysis
- There is a growing demand and appreciation for higher resolution, high accuracy and denser data from radar for hydrologic modeling in Central Valley floor and other flood prone areas. This same data is also seen as important to rectifying other imagery.

Survey and Geodetic Control

Essential
- Bench Marks
- Survey Monument Information
- Survey Field Notes
- Records of Survey Maps
- Corner Records
- Corner Ties
- Government Plats
- Government Notes

Important
- None

Useful
- None

Analysis
- There appears to be a clear appreciation for the importance of geodetic control in support of survey level work.

Transportation

Essential
- Updated roads
- Public Transit Routes/Stops
- First Public Road
- Freeways and Major Arteries
- Off road vehicle roads and trails
- Heliports, navigable waterways, urban light rail systems
- Traffic Volumes/Average Daily Traffic
- Bus Routes, Trails, Bikeways, private roads
- Transportation Resources

Important
- Off-road trails and historic road data (how does a current alignment differ from an older alignment)
- Bus and other mass transit routes
- Bus routes, sidewalks, trails
- Bus & train terminals
- Public transit such as commuter (heavy) rail, light rail, bus routes, etc.
- Average traffic volumes and speeds, continual median barriers, culverts/bridge locations and details (for wildlife crossings)

Useful
- Transit & rail

Analysis
- Updated, detailed, comprehensive road data are of great interest to many.
- There is also a demand for data on trails, unimproved roads, public transit, rail, airports and navigable waterways.
- There is also a desire for attribution related to traffic volumes, speeds, etc. presumably for modeling.

Boundaries

Essential
- Updated cities and
- Zip Code
- Mexican border
- Utility service areas, public safety response areas, redevelopment agency project areas, special districts, impact fee areas
- School districts

Important
- School Districts / School Locations
- Accurate Zip Codes
- Zip Code boundaries
- Hospital Districts (special taxation districts) school districts, community college districts and other special districts
- Governmental Units
- Levee districts

Useful
- Water district boundaries

Analysis
- There is a surprising demand for zip codes although these data are readily available.

- Updated city boundaries are desired. As stewardship for local jurisdictions are scattered, assembling and maintaining these data will be very challenging.
- Data on school locations and district boundaries seem to be important to many.

Hydrography

Essential

- Lakes and ponds
- Streams with proper names
- Estuary MHTL
- Storm Water Drainage Network
- Flood zones, levees, inundation footprints
- Flood Hazards
- Watersheds
- Water systems (both transport and drinking water), dams, diversions, etc.
- Detailed sub-3-meter accuracy

Important

- Wells
- Flood plains
- Water tanks/reservoirs & their capacities
- Storm water & waste water systems

Useful

- Depth to ground water

Analysis

- Stormwater drainage networks emerged as a data set of some importance.
- There seems to be a local need for high accuracy, complete hydrography beyond currently available national data sets. Can the GIS community come together behind a process of centralized stewardship with distributed maintenance of the NHD?
- Data about groundwater and wells are also of importance.

Cadastral (parcels)

Essential

- Roads and Parcels are probably the two most important data sets
- State boundaries for wildlife preserves, CDFG areas, etc.
- Parcels x2
- Filed Maps
- Address Points

- Parcel aggregates such as tax rate areas and special districts (e.g. healthcare districts)
- Accurate Cadastre data - state right of way, Landnet, parcels having state rights, adjoining parcels, etc.
- Recorded title documents, e.g. deeds, subdivision maps, parcel maps, records of survey
- Parcel boundaries, free Census data by block
- Parcel Data for the State of California should be easy to access and widely available to the public and especially to all Federal and State Agencies
- Updated protected lands layer that includes new state acquisitions, land trust holdings and easements
- Parcel ownership

Important

- More detailed land ownership layer (esp. utility companies)
- Public Land Survey
- Already scanned Survey final mapping products and ROW maps, documents, etc. linked to parcel layer
- Easements

Useful

- Assessor Parcel Plat Scanned maps

Analysis

- Seen as being one of the most important data sets
- Data on publicly owned and managed parcels of great interest to many
- Address points within parcels would be of great utility to many
- Making parcel data complete, up-to-date, consistent across the state and publicly accessible seen as very important by many
- Information about easements also important

Demographics

Essential

- School attendance area boundaries
- Economic Development (Retail site location)
- Median Household Income, Age by Sex, Ethnicity, Household Characteristics - at Block Group and Tract levels
- Population data stratified by country-of-origin or foreign-born vs. US-born; population data stratified by race/ethnicity, age
- Population Demographics, Births, rural/urban
- Other census geographies (blocks, block groups, tracts)
- Census tracts, census block groups, census blocks, Zip codes, school districts

- Housing characteristics, race and ethnicity, family income (at all census boundary levels)
- Race, Ethnic, Age
- Sub-county/sub-city (i.e. census block, block group, tract)
- Social/economic, race/ethnicity, level of education
- Updated census data (pop, pop100, housing density class fields)

Important
- Census level information at the tract, block group and block
- Population estimates

Useful
- None

Analysis
- Detailed, comprehensive, up-to-date and diverse demographic data clearly important to many
- Some of this is already available but sources may be poorly known

Scanned Maps

Essential
- Miscellaneous Maps
- FAA scanned flight maps

Important
- None

Useful
- None

Analysis
- Generally important to many but largely available
- There is a need for FAA and similar maps

Climate Data

Essential
- None

Important
- None

Useful
- None

Analysis
- Seemingly no great demand for this data type

Land Cover

Essential
- High resolution vegetation layer (wildlife habitat)
- Actual (current?) land cover data
- Vegetation and habitat data at high spatial resolutions

Important
- Wetlands
- Vegetation - plant communities, rare plant habitats, canopy and structure including under story, annual changes in vegetative cover
- Vegetation

Useful
- Earth Cover

Analysis
- Many noted need for vegetation layer as it relates to wildlife and sensitive habitats (see comments under Biodiversity)

Land Use

Essential
- Local Parks (useful for "tent cities" or staging areas)
- Up to date areas that have been urbanized and planned development
- General Plans
- All Subdivision Maps
- Municipal and County Urban Growth Boundaries

Important
- Future Planning (Specific Plans, Future Growth Patterns, Projected Growth)
- General Plan by City/County
- Zoning by City/County
- Annual Development increases
- Zoning
- Restricted use areas, e.g. desert protection, off-road restricted
- Land use restrictions -- conservation easements, Williamson Act, etc.

Useful
- None

Analysis
- Clear demand for general and other land use plans
- Zoning emerged as being important

Geocoding/Address Matching

Essential
- Batch geocoding service

Important
- None

Useful
- None

Analysis
- Demand for publicly accessible batch geocoding service; this would be a good candidate for a state geospatial web service

Biodiversity

Essential
- Biologically sensitive areas
- Updated environmental information from US Fish and Wildlife, State Fish & Game, others on MHCP, MSCP boundaries, wetlands, critical species, vegetation etc
- Wetlands
- Historic Wetlands
- Riffle, pool, water temperature ranges, fish passage barriers
- More detailed vegetation classification and mapping statewide
- Fish and upland species distributions (at least game and sensitive species)
- Riparian and wetlands
- Species occurrences (including NDDB, WHR)
- Historic conditions (vegetation, wildlife, waterways),
- Actual (current/observed?) wildlife occurrence data
- Sensitive habitats

Important
- Protected and sensitive habitat areas
- Sensitive resources

Useful
- Threatened and Endangered Species locations

Analysis

- Emerged as new category of "framework" data
- Need vegetation/habitat/natural community coverage with predicted wildlife associations and values (and perhaps management prescriptions?)
- Also need coverage of observed locations of listed, sensitive or otherwise special biota
- While there is a wealth of data within various state and federal agencies, too little is getting out to local agencies
- There is a need to generate interpreted data sets for use in local planning and development permitting

Critical Infrastructure

Essential

- All critical infrastructure
- Infrastructure Data (Electric, Gas, Water, Sewer and Storm Drain)
- Health care facilities, utilities, public works, law enforcement and fire services
- Healthcare facilities
- Libraries, parks, community colleges, schools, etc.
- Prisons, law enforcement/emergency stations, clinics
- Utilities/Infrastructure
- Ports
- Emergency Shelters and Facilities
- Hospitals, Clinics, survival resources
- Location of Emergency Response Personnel
- Critical Utility Infrastructure
- Hospital districts
- Trauma center catchments
- Disaster evacuation routes (vehicles & pedestrians)
- Designated casualty collection points
- Designated staging areas
- Designated evacuee collection & care areas
- Designated emergency facilities

Important

- Aqueducts
- Storm water conveyance system
- Buildings/Facilities
- Pipe infrastructure (sewer, water, storm water)
- Hydrants, valves & water mains

Useful

- Location of homeless shelters, jails, correctional facilities, long-term care facilities, community centers

Analysis

- The second new category of "framework" data to emerge mostly for emergency response/homeland security
- Will need to find a way to fund local efforts to develop, maintain and serve these data in a standardize form supporting large region planning and emergency response

Other

Essential

- Employment Sites
- Bluff
- Inland Extent of Beach
- Top of Stream Bank
- Medical Service Study Areas
- Fault lines/Earthquakes
- Statewide Control
- Soils
- Applications and releases of pesticides, herbicides, toxins
- CEQA and NEPA actions, timber harvest plans, etc.
- ESA actions (HCPs, NCCPs)
- Avian abundance data (vis-à-vis West Nile Virus and the potential threat of HPAI; Avian Influenza)
- Metadata
- Registry, catalog or directory of geospatial Web services (rather than stand alone datasets)

Important

- Conservation and restoration projects (NRPI, Prop. 40 & 50 actions, etc.)

Useful

- Soils
- Public Health

Analysis

- A wide variety of other data needed for determining government jurisdictions, management responsibility, findings and determinations
- Confirmed the need for metadata
- Growing awareness of importance of geospatial web services as opposed to static data sets for downloading

General Comments

- Our costs are all rolled up into a membership to the local association of governments. We receive updates to our data from the membership. There is no good breakdown of the numbers for the annual expenditures.
- No annual budget for any data purchases. Periodic BCP [budget] allocations for imagery purchase. Some grant funded imagery / data purchases
- Be careful of large scale programs offered by the federal/state government to apply a single data framework for Homeland Security or other cross discipline dataset areas (such as biology). These "one-size-fits-all" programs to creating data standards
- Data should be free, updated yearly from orthophotos at sub-meter accuracy
- Web services need now to be the forefront of data produce by the state and offered to the public.
- Collaboration and development of Web Services with local governments and the state need to be better funded and enhanced...like the BIOS program of CalFish and Game.
- Set up contracts for emergency imagery so it can be acquired quickly and painlessly, similar to the Forest Service
- The Intermap California "NextMAP" statewide offering of ~2m radar-based elevation is the most pressing unmet need for geospatial operations by State government, not only for its intrinsic applications in surface modeling for water applications
- Collaborative acquisition/sharing; high resolution is available for most urban areas (1 foot), but a lot of counties are flying their own and we should be able to build up partnerships to access this data
- Listed expenditures reflect a combination of out sourced aerial orthophoto (3”?) contracts & renewable licenses with SanGIS. Participating agencies pay $8,000 for a SanGIS license & updates to the base map.

Analysis

- These comments stand on their own requiring no particular analysis.
- Next time include a section for “other” comments